

Notice of Allowability	Application No.	Applicant(s)	
	10/762,087	SONG ET AL.	
	Examiner	Art Unit	
	Gabriel L. Chu	2114	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 27 September 2006.
2. ☒ The allowed claim(s) is/are 1-13, 16-20, 22-24, 26-33 and 35-44.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| <ol style="list-style-type: none"> 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____ |
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EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Michael A. Cofield on 1 December 2006.

The application has been amended as follows:

Claim 1 is amended, "...manually initiated processor-switchovers that are manually initiated during unscheduled maintenance; and

second unplanned outages that occur independently of manually initiated resets, manually initiated reloads and manually initiated processor-switchovers and occur independently of the predefined outage schedule, the second unplanned outages associated with device-disabling software errors[.]; and

outputting a representation of the classifications."

Claim 10 is amended, "...[[storing the classifications in a storage medium]]outputting a representation of the classifications."

Claim 16 is amended, "A network processing device, comprising:

a processor configured to capture error codes associated with network processing device outages and then automatically classify the error codes as software caused outages and hardware caused outages; [[and]]

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a first routing unit and a second back-up routing unit that each generate error codes individually classified by the processor as hardware caused outages and software caused outages[[]] and

a persistent memory for storing a crash file containing the error codes and user inputted instructions, the processor identifying the hardware and software outages and the planned and unplanned operational caused outages according to the error codes and the user inputted instructions in the crash file."

Claim 22 is amended, "A system for detecting outages, comprising:

means for capturing error codes associated with outages in a network processing device in a storage medium;

means for automatically classifying the error codes into software caused outages and hardware caused outage categories; [[and]]

means for automatically classifying at least some of the outages as planned operational outages and unplanned operational outages;

means for classifying outages as planned operational outages when a maintenance or planned upgrade command is detected and no error codes are associated with the outages;

means for classifying outages as software, hardware, and unplanned operational outages when error codes and manually initiated commands are associated with the outages[[]] and

means for outputting a representation of the classifications."

Claims 23, 24 are cancelled.

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Claim 31 is amended, "[[Logic encoded in one or more computer readable medium]]A computer storage medium storing instructions for execution and when executed operable to

capture error codes associated with outages in a network processing device;
automatically classify the error codes into software caused outages and hardware caused outage categories; [[and]]

automatically classify at least some outages as planned operational outages and unplanned operational outages;

classify outages as planned operational outages when a maintenance or planned upgrade command is detected and no error codes are associated with the outages; and

classify outages as software, hardware, and unplanned operational outages when error codes and manually initiated commands are associated with the outages.

Claims 32, 33 are cancelled.

Claim 40 is amended, "...classifying [[the]]error codes..."

Claim 41 is amended, "...according to claim [[14]]40..."

REASONS FOR ALLOWANCE

2. The following is an examiner's statement of reasons for allowance:
3. Referring to claims 1-9, the prior art does not teach or fairly suggest first unplanned outages that are user-directed but occur independently of the predefined outage schedule, the first unplanned outages corresponding to manually initiated resets, manually initiated reloads and manually initiated process-switchovers that are manually initiated during unscheduled maintenance; and second unplanned outages that occur

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independently of manually initiated resets, manually initiated reloads and manually initiated processor-switchovers and occur independently of the predefined outage schedule, the second unplanned outages associated with device-disabling software errors, in the scope and context of claim 1.

4. Referring to claims 10-13, 40, 41, the prior art does not teach or fairly suggest classifying the possibly software caused outages as first unplanned operational outages when the possibly software caused outages occur according to the manually initiated commands; classifying the possibly software caused outages as second unplanned outages when the possibly software caused outages occur independently of the predefined schedule and independently of the manually initiated commands, in the scope and context of claim 10.

5. Referring to claims 16, 17, 20, 42, the prior art does not teach or fairly suggest a persistent memory for storing a crash file containing the error codes and user inputted instructions, the processor identifying the hardware and software outages and the planned and unplanned operational caused outages according to the error codes and the user inputted instructions in the crash file, in the scope and context of claim 16.

6. Referring to claims 18, 19, the prior art does not teach or fairly suggest a persistent memory for storing a crash file containing the error codes and Command Line Interface (CLI) commands, the processor identifying the hardware and software outages and the planned and unplanned operational caused outages according to the error codes and the CLI commands in the crash file, in the scope and context of claim 18.

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7. Referring to claims 22-24, 26-33, 35-39, the prior art does not teach or fairly suggest classify outages as planned operational outages when a maintenance or planned upgrade command is detected and no error codes are associated with the outages; and classify outages as software, hardware, and unplanned operational outages when error codes and manually initiated commands are associated with the outages, in the scope and context of claims 22, 31.

8. Referring to claims 43, 44, the prior art does not teach or fairly suggest classify the error codes as hardware caused outages when the error codes could only be caused by a hardware crash; classify the error codes as best case software caused outages when the error codes could only be caused by a software crash; classify the error codes as worst case software caused outages when the error codes are ambiguous, in the scope and context of claim 43.

9. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gabriel L. Chu whose telephone number is (571) 272-3656. The examiner can normally be reached on weekdays between 8:30 AM and 5:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Baderman can be reached on (571) 272-3644. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Gabriel L. Chu
Examiner
Art Unit 2114

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